

Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

East Brush Creek

Waterbody Segment at a Glance:

County: Moniteau
Nearby Cities: California
Length of impairment: 1.0 miles
Pollutant: Nutrients, Biochemical Oxygen Demand (BOD), Non-Filterable Residue (NFR)
Source: California North Wastewater Treatment Plant (WWTP)

Note: Missouri will request BOD and NFR be removed as pollutants in the next listing cycle



State map showing location of watershed

TMDL Priority Ranking: High

Description of the Problem

Beneficial uses of East Brush Creek

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health associated with Fish Consumption

Use that is impaired

- Protection of Warm Water Aquatic Life

Standards that apply

The impairment of East Brush Creek is based on exceedence of the general criteria contained in Missouri's Water Quality Standards, 10 CSR 20-7.031 (3)(A) and (C). These criteria state:

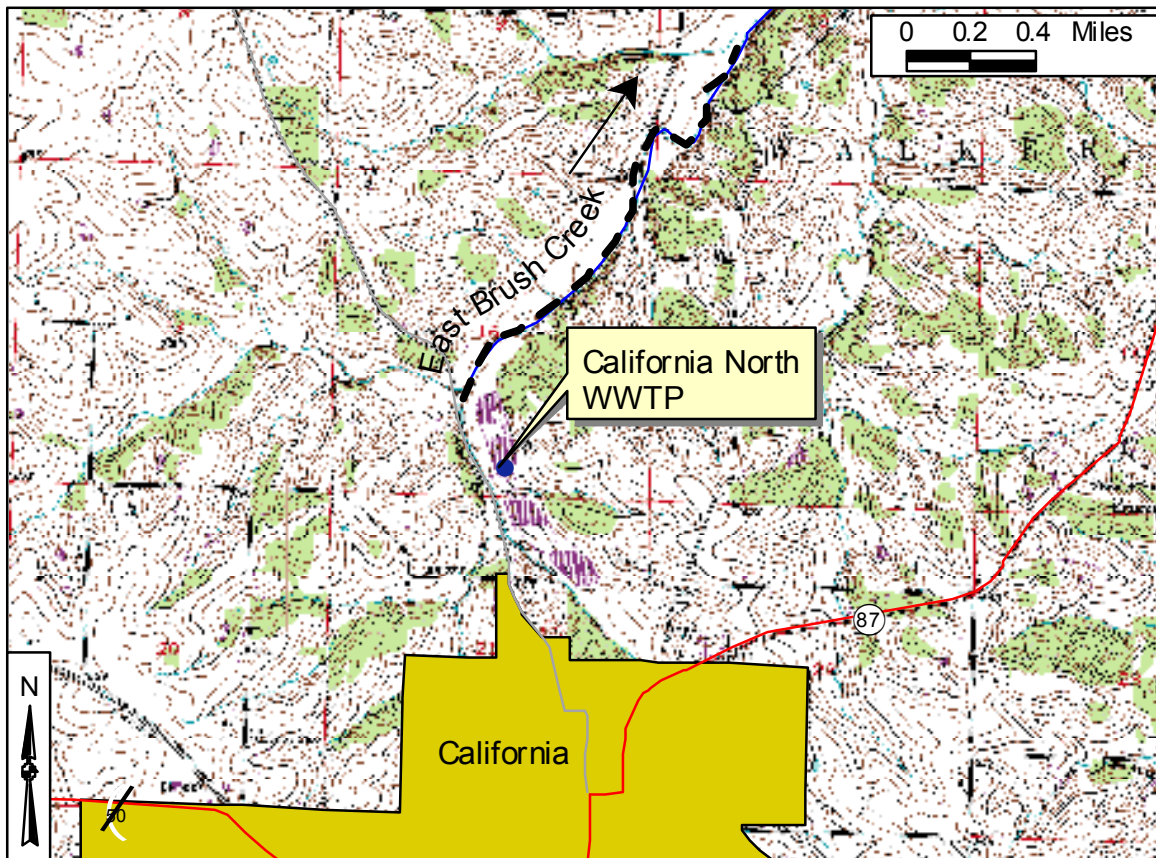
- Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
- Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.

Background Information

This stream shows excessive algae growth downstream from the California North wastewater treatment plant (WWTP). This is caused by too many nutrients, not Biochemical Oxygen Demand (BOD) and Non-Filterable Residue (NFR) as stated on the 2002 303(d) list. Nutrients, nitrogen and phosphorus in particular, are applied to crops and lawns to increase plant growth. When these

nutrients find their way into waterbodies, algal growth is stimulated. Many aquatic organisms require high levels of oxygen to survive and when algae dies off, the water is robbed of dissolved oxygen to decompose it. The department plans additional studies to determine if the aquatic invertebrates (like water insects and crayfish) in this stream are impaired due to the wastewater discharge. Like all wastewater discharges in Missouri, the California North WWTP has to meet the requirements of a discharge permit issued by Missouri Department of Natural Resources. If these studies show that East Brush Creek is still not meeting water quality standards, changes will be made to the discharge permit. This would result in improvement of the quality of the wastewater discharge and should improve the water quality in East Brush Creek.

Impaired Portion of East Brush Creek, Moniteau County, Missouri,



--- Impaired Segment → Direction of flow

For more information call or write:

Missouri Department of Natural Resources

Water Protection Program

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